

Work Order ID 69495

Wednesday, May 11, 2011 1:42:40 PM



Page 1

Item ID: D2535

Accept



Setup Start



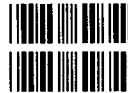
Revision ID:

Stop



Item Name: Spring

Start Date: 5/11/2011 Start Qty: 30.00



Cust Item ID:

Required Date: 5/18/2011 Req'd Qty: 30.00



Customer:

Reference:

Run Start



Approvals: Process Plan: CL Date: 11/05/11 Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2535

Rev A

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 14068 ☐ Possible Supplier: Victoria Spring, 0.070 SS Torsion Spring

CL 11/05/11 (30)

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure Material Release Note is attached

Run 10/24 (30)

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Check dims to dwg

8 11/05/11

cont'd (30)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 69495

Wednesday, May 11, 2011 1:42:40 PM

Page 2

Item ID: D2535

Accept

Revision ID:

Item Name: Spring

Start Date: 5/11/2011 Start Qty: 30.00

Required Date: 5/18/2011 Req'd Qty: 30.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: 504

0.00



Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Run/Stop (30)

11/5/26

MF

11-05-25

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Picklist Print

Page 1

Wednesday, May 11, 2011 1:42:23 PM

Work Order ID: 69495



Parent Item: D2535

Parent Item Name: Spring



Start Date: 5/11/2011

Required Date: 5/18/2011

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP A□99.04.19□New Issue (From hand written IPP)□DM□

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2535P  Spring		Purchased	No			100	Each	0.0000	1 	30		5/10/24	(34)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

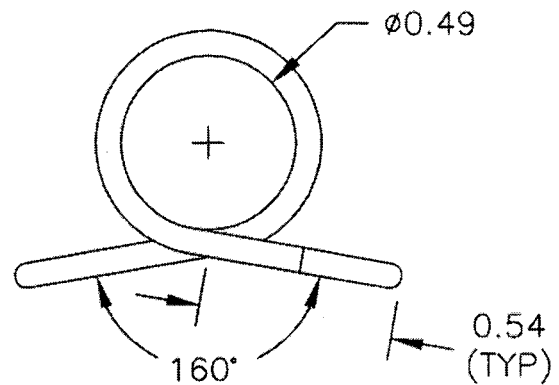
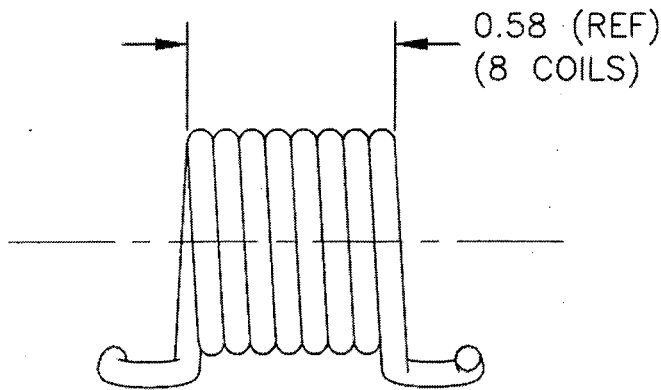
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

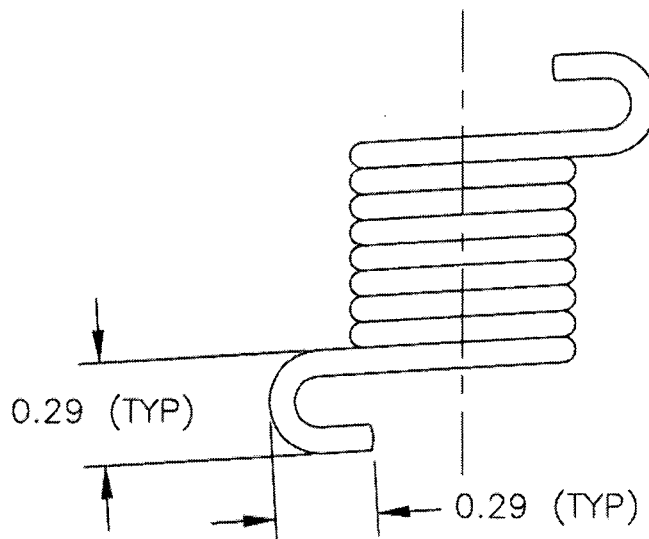


DESIGN BW	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED KE	APPROVED JH	DRAWING NO. D2535	REV. A SHEET 1 OF 1
DATE 99.04.08	TITLE SPRING SPEC CONTROL		SCALE 2:1
A	99.04.08	NEW ISSUE	

RELEASED
99.05.11 KE



CL 11/05/11
WID: 69495



SPECIFICATION CONTROL DRAWING

TENSION SPRING WITH 8 COILS (NO GAP BETWEEN COILS)

MATERIAL: AISI STAINLESS STEEL $\phi 0.070$

POSSIBLE SUPPLIERS: VICTORIA SPRINGS, P/N .070SS TENSION SPRING

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO14068

Purchase Order Date 5/11/2011

PO Print Date 5/11/2011

Page Number 1 of 1

Order From :

VC-VIC002

VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	866 230 5312	Requisition Nbr	
Vendor Fax	866 230 5338	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Ship To :

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
CL 5/10/11

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2535P	Spring	5/18/2011 Yes	30.00 Each	FedEx PI collect	\$4.5600	\$136.80

Special Inst: AS PER DWG D2535 REV. A
B69495
MATERIAL: 0.070 SS TORSION SPRING

PO Total: \$136.80

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 5/11/2011

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



convenient. consistent. correct.

PACKING SLIP

22484

#2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
f + 780 466 8000

BILL TO: Dart Aerospace Ltd.
1270 Aberdeen St.
Hawkesbury ON K6A 1K7

SHIP TO:

DATE		ORDER No.		SHIP VIA	
20-May-11		PO14068		Fedex 151793240	
QUANTITY	DESCRIPTION			UNIT	AMOUNT
30	<u>D2535P Spring</u>				
GST #		TERMS	SUBTOTAL	FREIGHT	GST
854454527		NET 30 DAYS			

CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace Ltd.	DATE: 5/20/2011
PART/DRAWING #: D2535P	PO # <u>PO14068</u>
SPRING DESCRIPTION: Torsion	QUANTITY: <u>30</u>

Summary

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS302	yes	
Material diameter	0.07	0.072	per previous orders
Coil I.D.	0.490	0.5	
Coil O.D.			
Number of Coils	8 ref	7.9	
Free Length			
Helix	RHW	yes	
End type	per dwg	yes	
Debur End			

COMMENTS

Mill Certificate attached: yes
Material Heat Number: E73133 / 35771

Inspected by: *Jeremy Burrows*

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace Ltd.	DATE: 5/20/2011																																	
PART/DRAWING #: D2535P Torsion Spring	PO # PO14068																																	
SPRING DESCRIPTION: Torsion	QUANTITY: 20																																	
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03																																		
<p>PROPERTIES: <i>S 11/05/24</i></p> <table> <thead> <tr> <th><u>Chemical</u></th> <th></th> <th><u>Physical</u></th> </tr> </thead> <tbody> <tr> <td>Carbon: (C)</td> <td>0.056</td> <td>Size: 0.072"</td> </tr> <tr> <td>Chromium: (Cr)</td> <td>18.110</td> <td></td> </tr> <tr> <td>Copper: (Cu)</td> <td>0.400</td> <td>Tensile: 254,000 / 258,000</td> </tr> <tr> <td>Manganese: (Mn)</td> <td>1.580</td> <td>Hardness:</td> </tr> <tr> <td>Molybdenum: (Mo)</td> <td>0.410</td> <td></td> </tr> <tr> <td>Nickel: (Ni)</td> <td>9.200</td> <td></td> </tr> <tr> <td>Nitrogen: (N)</td> <td>0.040</td> <td>Heat # 35771</td> </tr> <tr> <td>Phosphorus: (P)</td> <td>0.031</td> <td></td> </tr> <tr> <td>Silicon: (Si)</td> <td>0.460</td> <td></td> </tr> <tr> <td>Sulphur: (S)</td> <td>0.001</td> <td></td> </tr> </tbody> </table>		<u>Chemical</u>		<u>Physical</u>	Carbon: (C)	0.056	Size: 0.072"	Chromium: (Cr)	18.110		Copper: (Cu)	0.400	Tensile: 254,000 / 258,000	Manganese: (Mn)	1.580	Hardness:	Molybdenum: (Mo)	0.410		Nickel: (Ni)	9.200		Nitrogen: (N)	0.040	Heat # 35771	Phosphorus: (P)	0.031		Silicon: (Si)	0.460		Sulphur: (S)	0.001	
<u>Chemical</u>		<u>Physical</u>																																
Carbon: (C)	0.056	Size: 0.072"																																
Chromium: (Cr)	18.110																																	
Copper: (Cu)	0.400	Tensile: 254,000 / 258,000																																
Manganese: (Mn)	1.580	Hardness:																																
Molybdenum: (Mo)	0.410																																	
Nickel: (Ni)	9.200																																	
Nitrogen: (N)	0.040	Heat # 35771																																
Phosphorus: (P)	0.031																																	
Silicon: (Si)	0.460																																	
Sulphur: (S)	0.001																																	

Certified by: *Jeremy Burrows*

Victory Spring Ltd. certifies this to be a true & accurate copy of the original
contained in the company records.

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace Ltd.	DATE: 5/20/2011																						
PART/DRAWING #: D2535P Torsion Spring	PO # <u>PO14068</u>																						
SPRING DESCRIPTION: Torsion	QUANTITY: <u>10</u>																						
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03																							
<p>PROPERTIES: <i>Stainless</i></p> <table> <thead> <tr> <th><u>Chemical</u></th> <th><u>Physical</u></th> </tr> </thead> <tbody> <tr> <td>Carbon: (C) 0.080</td> <td>Size: .072"</td> </tr> <tr> <td>Chromium: (Cr) 17.500</td> <td>Tensile: 256,000</td> </tr> <tr> <td>Copper: (Cu) 0.320</td> <td>Hardness:</td> </tr> <tr> <td>Manganese: (Mn) 1.240</td> <td></td> </tr> <tr> <td>Molybdenum: (Mo) 0.230</td> <td></td> </tr> <tr> <td>Nickel: (Ni) 8.010</td> <td>Heat # E73133</td> </tr> <tr> <td>Nitrogen: (N) 0.040</td> <td></td> </tr> <tr> <td>Phosphorus: (P) 0.032</td> <td></td> </tr> <tr> <td>Silicon: (Si) 0.380</td> <td></td> </tr> <tr> <td>Sulphur: (S) 0.006</td> <td></td> </tr> </tbody> </table>		<u>Chemical</u>	<u>Physical</u>	Carbon: (C) 0.080	Size: .072"	Chromium: (Cr) 17.500	Tensile: 256,000	Copper: (Cu) 0.320	Hardness:	Manganese: (Mn) 1.240		Molybdenum: (Mo) 0.230		Nickel: (Ni) 8.010	Heat # E73133	Nitrogen: (N) 0.040		Phosphorus: (P) 0.032		Silicon: (Si) 0.380		Sulphur: (S) 0.006	
<u>Chemical</u>	<u>Physical</u>																						
Carbon: (C) 0.080	Size: .072"																						
Chromium: (Cr) 17.500	Tensile: 256,000																						
Copper: (Cu) 0.320	Hardness:																						
Manganese: (Mn) 1.240																							
Molybdenum: (Mo) 0.230																							
Nickel: (Ni) 8.010	Heat # E73133																						
Nitrogen: (N) 0.040																							
Phosphorus: (P) 0.032																							
Silicon: (Si) 0.380																							
Sulphur: (S) 0.006																							

Certified by: *Jeremy Burrowes*

Victory Spring Ltd. certifies this to be a true & accurate copy of the original contained in the company records.